

**ABSTRACT**

An x-ray reflectometry system for measuring thin film samples. The system includes an adjustable x-ray source, such that characteristics of an x-ray probe beam output by the x-ray source can be adjusted to improve the resolution of the measurement system. The x-ray probe beam can also be modified to increase the speed of evaluating the thin film sample, for situations where some degree of resolution can be sacrificed. In addition, or alternatively, the system can also provide an adjustable detector position device which allows the position of the detector to be adjusted to increase the resolution of the system, or to reduce the time it takes to evaluate the thin film material.

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